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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/898,969 | 07/03/2001 | Ramesh Lhila | 6001-44-1 | 9960 |

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McCormick, Paulding & Huber
City Place II
185 Asylum Street
Hartford, CT 06103-3402

EXAMINER

VO, HAI

| ART UNIT | PAPER NUMBER |
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1771

DATE MAILED: 12/10/2001

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Please find below and/or attached an Office communication concerning this application or proceeding.

AS 5

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/898,969 | LHILA, RAMESH | |
| | Examiner | Art Unit | |
| | Hai Vo | 1771 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/03/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 21-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4 & 2</u> | 6) <input type="checkbox"/> Other: |

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-20, drawn to an acrylic foam-like pressure sensitive adhesive tape, classified in class 428, subclass 3.
 - II. Claims 21-40, drawn to a process of making an acrylic foam-like pressure sensitive adhesive tape, classified in class 156, subclass various.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process such as by coextrusion instead of coating to make an article.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mary-Jacq Holroyd on 11/29/01 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-20. Affirmation of this election must be made by applicant in replying to this Office

action. Claims 21-40 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "foam-like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veasley et al (US 5,024,880) in view of Bennett et al (US 5,683,798). Veasley discloses a pressure sensitive adhesive tape comprising an acrylic backing layer laminated thereto a layer of a pressure sensitive adhesive (column 11, lines 28-39). Veasley teaches an acrylic backing layer containing from 65 parts to 95 parts of an acrylic polymer comprising

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(i) from 60 to 90 parts of an alkyl acrylate monomer the alkyl groups of which have an average of 4 to 12 carbon atoms.

(ii) from 40 to 10 parts of a monoethylenically unsaturated polar copolymerization monomer and

(iii) hollow glass microspheres dispersed evenly in polymer. (column 11 lines 45-52 and column 10, line 26).

Veasley does not teach the acrylic polymer having two different alkyl acrylate monomers and two different monoethylenically unsaturated polar copolymerization monomers. Bennett rectifies the deficiencies. The acrylic acid esters can be a combination of isooctyl acrylate and 2-ethylhexyl acrylate (column 4, lines 5-8). The polar monomers include a combination of acrylic acid and acrylamide (column 4, lines 33-37). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated two alkyl acrylate monomers and two polar monomers in forming the acrylic polymer motivated by the desire to obtain an acrylic adhesive having good internal strength and appropriate polarity.

Furthermore, it is noted that the claims do not require that the first and the second monomers be different!

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have altered the amount of alkyl acrylate monomer, polar monomer and hollow glass microsphere, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In *re Aller*, 105 USPQ 233. It

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would have been obvious to the skilled artisan to have optimized the amount of alkyl acrylate monomer, polar monomer and hollow glass microsphere, motivated by the desire to obtain an acrylic adhesive having good internal strength, appropriate polarity, slidability and bondability.

With regard to claims 2 and 3, Veasley discloses the acrylic polymer comprising 0.01 to 1 part of a photoinitiator (column 11, line 53).

With regard to claims 4-7, Veasley discloses the acrylic polymer comprising a crosslinking agent which is multi-ethylenically unsaturated copolymerizable monomer and polyfunctional acrylate (column 8, lines 30-40). Veasley is silent as to the amount of the crosslinking agent. Bennett discloses the crosslinker is present in an amount of 0.005 to 1 weight %. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have altered the amount of the crosslinking agent, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In *re Aller*, 105 USPQ 233. It would have been obvious to the skilled artisan to have optimized the amount of the crosslinking agent motivated by the desire to enhance the cohesive strength of the foam adhesive tape.

With regard to claims 8, 10 and 16, Veasley discloses the acrylic polymer comprising 2 to 15phr of a hydrophobic silica (column 10, lines 17-19). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have altered the amount of the filler, since it has been held that where the general

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conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In *re Aller*, 105 USPQ 233. It would have been obvious to the skilled artisan to have optimized the amount of the filler motivated by the desire to control the degree of viscosity of the acrylic polymer and thereby achieving a thickness of the polymer.

With regard to claims 9 and 15, Veasley is silent as to the fumed silica. Bennett supplies the missing feature (column 6, line 32). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated the fumed silica in the composition motivated by the desire to control the degree of viscosity of the acrylic polymer and thereby achieving a thickness of the polymer.

With regard to claim 11, Neither Veasley nor Bennett disclose the hollow microsphere is borosilicate glass. It is known in the glass microsphere art that borosilicate glass is a hollow microsphere.

With regard to claim 12, Veasley discloses every element as claimed by the present invention, but the amount of each element does not fall within the specific range as recited in the claim. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have altered the amount of an initiator, a filler and a crosslinker, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In *re Aller*, 105 USPQ 233. It would have been obvious to the skilled artisan to have optimized the amount of an initiator, a filler and a

crosslinker motivated by the desire to control the degree of viscosity of the acrylic polymer and to enhance the cohesive strength of the foam adhesive tape.

With regard to claims 13 and 14, Veasley discloses the photoinitiator is bezoin ether (column 8, line 17).

With regard to claim 17, Veasley is silent as to the crosslinker is 1,4 butanediol diacrylate. Bennett teaches the crosslinker is 1,4 butanediol diacrylate (column 5, line 45). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used 1,4 butanediol diacrylate as the crosslinker since the examiner takes Official Notice of the equivalence of multifunctional acrylate monomers for their use in the adhesive composition and the selection of any of these known equivalents would be within the level of the ordinary skill in the art.


With regard to claim 20, Veasley teaches a coloring agent being a filler of the acrylic polymer (column 10, line 22).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on Monday to Friday, 8:30 to 5:00 (EAST). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (703) 308-1261. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV
December 2, 2001



BLAINE COPENHAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700